BYRD (Wm A.)

Strangulated hernia ×××

STRANGULATED HERNIA,

WITH FECAL FISTULA,

TREATED BY A NEW AND SIMPLE ENTEROTOME AND AN ANAPLASTIC OPERATION.

By WILLIAM A. BYRD, M.D., of Quincy, Ill.

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October 9th, 1878, I was called to Seehorn, Ill., to see Mr. John Lyons, a farmer, aged 55, who was suffering with strangulated hernia.

Dr. J. H. Aleshire, his family physician, gave the following history of the case: October 5th, he was called to see the patient, for what the family supposed to be cramp colic, with vomiting, which he found upon examination to be the result of a strangulation of an inguinal hernia of the left side. The hernia was congenital, but had never before given any serious trouble; neither had a truss been worn.

Taxis not relieving him the Doctor spoke of counsel, and perhaps the necessity of an operation, to which the patient objected. The Doctor gave anodynes and returned the next day, when the symptoms still persisting, taxis was again tried and again failed. The patient still objecting to an operation. This state of affairs continuing until the afternoon of the 8th, the Doctor determined to have counsel, whether the patient was willing or not, and sent for Dr. L. H. Baker, of Payson, a surgeon of ability and experience, who, upon arriving, which was about midnight, decided that the case was almost hopeless, and the operation for his relief would be of so critical a nature as to require all the light possible for its proper performance. The Doctors concluded to wait for morning, and sent for me to assist them.

I arrived at ten o'clock, and found the patient almost pulseless, semi-comatose, with cold clammy sweat and œdematous crackling in the areolar tissue at the point of strangulation. The case looked hopeless; still I agreed with the other gentlemen in advocating an operation. Dr. Baker, himself an old and skillful operator, insisted upon my performing the operation, which I did.

When the sac was opened it contained extravasated fæces, a mass of gangrenous omentum, and eight inches of gangrened intestine, that had separated for nearly half its diameter, both above and below. There were slight adhesions above the line of demarcation. The omentum was pulled down and ligated *en masse*, just above the mortified portion, which was cut off, and the long ends of the ligature were left hanging out of the wound.

The gangrenous portion of intestine was cut off at the lines of demarcation, and the healthy ends stitched into the opening in the abdomen, which was two inches and a half in length, the lower and inner end with three and the upper with two sutures.

As a portion of the contents of the bowel unavoidably entered the abdominal cavity, it was cleaned out as well as possible, and the two ends of the bowel were not stitched to each other, that an opening might be left for drainage and the withdrawal of the ligatures that were applied to the omentum. When the operation was ended his pulse and other symptoms were better.

Dr. Aleshire continued in charge of the case, and washed out the wound and the cavity of the abdomen in its vicinity, night and morning, by injecting a solution consisting of a teaspoonful of table salt and a teaspoonful of carbolic acid to the gallon of water.

The patient made a rapid recovery, being put upon good diet, opium, cinchonidia and whisky, for after treatment.

December 26th, 1878, he came to this city to enter St. Mary's Hospital, for the purpose of having an operation performed for the closure of the fecal fistule. The discharges rendered him disagreeable to himself and loathsome to others.

At the time of the operation for the relief of the strangulation he was very thin of flesh, and had been suffering with malarial diseases for four years. When he came to the hospital he had entirely recovered his health and gained forty pounds in weight.

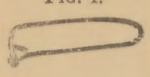
A crest-like septum existed between the openings, about a quarter of an inch thick. The mucous membrane prolapsed or rolled out, making the combined openings appear to be two and a half by four inches in size. Over this he wore compresses, to restrain the passage of fecal matter, and catch it when it did pass.

The upper opening passed inward, upward and backward, and the lower passed inward, parallel with the upper for about two inches, and then turned across the body to the caput coli.

I had read Dr. David Prince's article upon closure of artificial anus, in the October 1869 No. *American Journal of the Medical Sciences*, p. 412, *et seq.*, and liked his idea of very gradual pressure to procure adhesive inflammation and an opening through the septum between the intestines, better than anything I could find in the various works on surgery, including the exhaustive disquisition in the *Medical and Surgical History of the War*, part second, Surgical Volume.

Dr. Prince's instrument is unnecessarily complicated, and could be made much simpler and just as effective with a single piece of spring wire, as in Fig. 1.

FIG. 1.



His experience of the septum uniting behind the ligature as it cut through decided me to use an instrument that would take out a round or elliptical piece, as do the enterotomes of Delpech, Gross and Lotz, with the advantage of light elastic pressure, as in Dr. Prince's instrument. Such an instrument I succeeded in devising and constructing, with Dr. Aleshire's assistance, out of a piece of steel wire, such as is used for bed springs. See Fig. 2.

FIG. 2.

This instrument we applied by passing a prong down each of the ends of the bowel, for an inch and a half, and permitting it to clasp the septum, December 26th, 1879, at 3 P.M. Fourth-grain doses of morphia were ordered every hour, to allay pain, if necessary.

The next morning the Sister in charge informed me that there had been so little pain that two powders subdued it.

29th, I slipped an elastic strap over the arms of the enterotome, so as to increase the pressure.

January 2d, the fenestrated rings had cut through, and he had a passage per rectum in the morning, the first since the 5th of October.

The bridge of tissue was destroyed by passing an elastic cord through the opening made by the enterotome and tying it tightly over a gallows erected upon a tin disk with a hole through the centre, as in Dr. Prince's operation, which took three days longer.

A flat piece of lead, one-fourth of an inch in thickness, and large enough to cover the opening, was adjusted as a pad to a spring truss. Owing to this pressure the opening rapidly decreased, until about one-half its former size, and most of the fæces passed through the rectum.

January 31st, the opening ceasing to decrease in size, and the septum seeming to come nearer the surface, by contraction, and to stand up for three quarters of an inch between the ends of the bowel, offering a greater obstruction to the passage of the fæces from above downward than it did immediately after it was first divided, I reapplied the enterotome to the projection. It cut through as before, and was removed, February 4th, when, with the assistance of Dr. Jacob A. Wagner, I applied the galvano-cautery to the outer edges of the opening, to induce contraction.

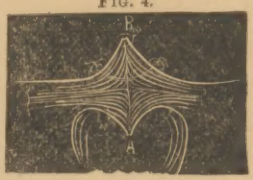
February 15th, there having been very little contraction, with the assistance of Dr. Wagner, I freshened the edges of the opening with a knife and united them with iron wire sutures. The next morning I found him suffering great pain, from the fæces distending the bowel and exuding between the sutures. My friend, Dr. M. Rooney, being at the hospital earlier than myself, had given him some relief with a hypodermic injection of morphine. I cut the sutures and allowed the fæces to escape freely, which gave immediate relief.

Having failed to effect a closure of the fistule by that simple operation, I devised the following method, and with the assistance of Mr. Joseph Hollybush, a medical student, made the operation, February 7th. By catching the integument into a fold on either side of the fistule, the tops of the folds could be easily brought together over the fistule. An incision was made along the top of the folds, down to the areolar tissue, and continued entirely around the fistule; this incision was about three-quarters of an inch from the fistule. Two iron wire sutures were then passed three-quarters of an inch back from the incision, emerging through the incision, crossing the fistule and integument, and entering the incision on the opposite side, and coming out of the skin three-quarters of an inch from

its point of entrance into the incision. See Fig. 3. *A* is the fistule, *B* the surrounding incision. A Bozeman shield and shot clamp being placed upon one end of the wire and tightened, and traction made on the other end, the folds would be reproduced, and the skin next the fistule, having its edge turned, in or inverted, would bring nearly an inch of fresh, raw surface in apposition all around the fistule. Fig. 4 shows a cross section after the stay sutures have been tightened. *A*, caliber of the bowel, with the inverted skin pointing in, in a V shape. *B*, skin external to the incision, brought together with a suture.

FIG. 3.

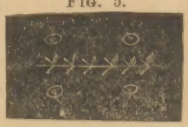
FIG. 4.



Examination of this figure will show that the fæces, in passing downward, would not act as a wedge to tear open the wound, as in any other mode of closure, but coming up on both sides of the V-shaped projection, they press the raw surfaces together, contributing to their adhesion, while the shape of the projection causes it to act as a valve, to prevent the escape of the fæces.

Fig. 5 represents the parts after the stay-sutures are tightened and the edges of the external skin have been united with interrupted sutures.

FIG. 5.



Union by first intention occurred throughout, except a portion of the inner end, leaving an opening the size of the end of the little finger, which gradually decreased until it was not larger than a small lead pencil, and permitted no fæces, unless very fluid, and a little gas, to escape.

Discharged February 8th. The patient, when discharged, had a morbid fear that the opening would close entirely up, thinking that if it did he would die. I do not know that it has entirely healed yet, but fear he has prevented it, from not understanding the condition of affairs. I think I would have secured union throughout from my last operation, if there had been three stay-sutures used instead of two.

Dr. Frank H. Hamilton, in his valuable work on surgery, states that about three out of five die that are operated upon for strangulated hernia, which seems like too great a per cent., and permits such statements to be made as, "Dr. Druitt has justly observed, ovariotomy need not fear to be judged by such results as these, which are far more favorable than those after the larger amputations, and after herniotomy and lithotomy in the adult." *Medical Press and Circular*, June 18th, 1879, p. 489. Personally I do not think I have the right to draw a comparison between ovariotomy and herniotomy, as I have performed ovariotomy but once, and that one successfully. In the last five years I have performed herniotomy twelve times, with three deaths; of the patients that have died one was eighty-seven, another seventy-six years old, and the other one in the last stages of consumption. Two of those that recovered were over seventy years old. Such good results I attribute to early operative interference, and in an article contributed to the Richmond and Louisville *Medical Journal*, for January 1877, entitled, "When to Operate for Strangulated Hernia," I insisted upon the safety of the patient in the great majority of cases being greater the sooner the operation, after a short taxis fails to reduce.

Bryant recommends that taxis be tried for five minutes, and failing, that herniotomy be immediately resorted to. Although this may seem like hasty practice, it is infinitely superior to long continued taxis, frequently so forcible as to cause peritonitis or reduction *en bloc*, followed by the death of the patient, leaving the operator but one consolation, that the mischief he has produced is so hidden that no one knows it, allowing him to place the responsibility of the bad result upon the Lord.